

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

It is noted that the requirement for an election of species has been withdrawn.

Claim 70 has been cancelled. Claim 67 has been amended to recite the further step of producing a relative movement between the at least one of the slit shaped nozzles, which has been rotated to modify the effective plasma width/area, and the substrate, to thereby remove a coating from the substrate over a width/area determined by an angle of rotation of the slit shaped nozzle. Basis for this is found in the paragraph beginning at line 10 of page 15 and the top paragraph on page 18.

Claims 36, 40 and 67 were newly rejected under 35 U.S.C. §103 as being obvious over Fornsel in view of Babko-Malyi and further in view of U.S. patent publication 2008/0099441 (Carr). According to the Office Action, Carr teaches rotating nozzles in order to shape a workpiece. However, this rejection is respectfully traversed.

As was explained in the last response, according to a feature of the invention set forth in Claim 67, the effective width/area of a plasma is modified by rotating at least one slit shaped nozzle, and this is not taught in Fornsel and Babko-Malyi. The outstanding Office Action therefore additionally relied on Carr to teach rotating nozzles in order to shape a workpiece.

Carr discloses a method of shaping a workpiece using a plasma torch. Referring to Fig. 1, a stage 116 can translate and/or rotate a workpiece 110 on a chuck 112 to properly shape the workpiece using the plasma from the torch 68 (paragraphs [0030] and [0033]). In particular:

If any shape on the part is required, other than a Gaussian depression of various depths, it may be necessary to translate and/or rotate the part relative to the torch, although it may also be possible to translate and/or rotate the torch with respect to the part, or both with respect to each other. If the torch is held stationary and lowered into the part a depression or pit may result. If the torch translates across the

part *while spinning*, a trench may be produced. (Carr, paragraph [0068]; emphasis added).

That is, the teaching of Carr is that the plasma torch forms a depression and that the depression is elongated into a trench if the workpiece is moved relative to the torch. The trench may be straight if the chuck is moved in translation or may be annular due to the spinning of the chuck, but its effective width is not changed by rotating the nozzle. What is *not* taught in Carr is changing the effective width of the plasma, e.g., by the presently claimed feature of rotating a slit shaped nozzle, so that upon relative movement of the nozzle, a coating is removed from the substrate over a width/area determined by an angle of rotation of the nozzle. Claim 67 is therefore unobvious from any combination of Fornsel, Babko-Malyi and Carr.

Claims 68-69 instead steps of producing a relative movement between the plasma and the substrate, parallel to the edge of the substrate, and respectively pivoting the row of nozzles, or a slit shaped nozzle, about an axis perpendicular to the substrate in the region of a corner of the substrate, before producing a relative movement between the plasma and substrate parallel to another edge of the substrate. Thus, it is possible to negotiate a corner by pivoting the entire row of nozzles or a slit shaped nozzle about an axis perpendicular to the substrate.

Claims 68-69, as well as Claims 44, 49 and 50, were rejected under 35 U.S.C. §103 as being obvious over Fornsel in view of Babko-Malyi and Carr and Siniaguine et al.

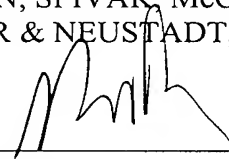
According to the Office Action, Siniaguine et al teaches “that it is useful to vary the angle of the plasma jet relative to the coating to be removed.” However, it is noted that the cited portion of Siniaguine et al (column 3, lines 27-41) merely describes that the *angle of incidence* of the plasma jet relative to the surface of the article may be varied, i.e., varying the angle of the plasma jet about an axis *parallel* to the surface. It does not teach that a row of nozzles, or a slit shaped nozzle, should be pivoted about an axis *perpendicular* to the

substrate in the region of a corner of the substrate, and so Siniaguine et al could not have taught one skilled in the art to have modified Fornsel in this manner. Claims 68-69 therefore define over this prior art.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early notice of allowability.

Respectfully submitted,

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